

What is claimed is:

1. A device for transmitting torque between two rotatable, coaxial shaft members (1, 2), the device containing

a clutch (35) between the two shaft members and engageable - to counteract rotational speed differential between the shaft members - by means of a hydraulic piston (18) under the control of an electrically controlled throttle or pressure valve (26),

and a clutch pump (36) for supplying hydraulic pressure to the hydraulic piston (18), the clutch pump being driven by either one or both of the shaft members,

wherein the hydraulic piston (18), the valve (26), and the clutch pump (36) are connected in a hydraulic system also containing a feeder pump (31) for maintaining a certain base pressure in the system,

characterized by means in the hydraulic system for conditionally allowing flow from the feeder pump (31) past the valve (26) to the hydraulic piston (18) irrespective of the flow from the clutch pump (36).

2. A device according to claim 1, wherein the clutch pump is a differential pump (36) driven by the rotational speed differential between the two shaft members (1, 2).

3. A device according to claim 2,

in which the hydraulic system in a closed portion comprises lines (21, 23, 25) from the differential pump (36), through the electrically controlled throttle or pressure valve (26) to the clutch (35), the portion including check-valves (22, 28), and in which oil may be supplied by the feeder pump (31) from a reservoir (29) and may be removed to the reservoir via an overflow valve (30),

wherein the feeder pump (31) and the differential pump (36) are connected in series by means of a check-valve (24) between the overflow valve (30) and the feeder pump (31).

4. A device according to claim 3, wherein an accumulator (32) is arranged in connection with the overflow valve (30).

5. A device according to claim 3, wherein an accumulator (32) is arranged in connection with the feeder pump (31).

6. A device according to claim 2,

in which the hydraulic system in a closed portion comprises lines (21, 23, 25) from the differential pump (36), through the electrically controlled throttle or pressure valve (26) to the clutch (35), the portion including check-valves (22, 28), and in which oil may be supplied by the feeder pump (31) from a reservoir (29) and may be removed to the reservoir via an overflow valve (30),

wherein the feeder pump (31) and the differential pump (36) are connected in parallel by means of a check-valve (38) between the feeder pump (31) and the electrically controlled throttle or pressure valve (26).

7. A device according to any of the preceding claims, wherein an overflow valve (37) is connected in parallel over the check-valve (24, 38).

8. A device according to any of the preceding claims, wherein a pressure transducer (39) is arranged in conjunction with the electrically controlled throttle or pressure valve (26).